

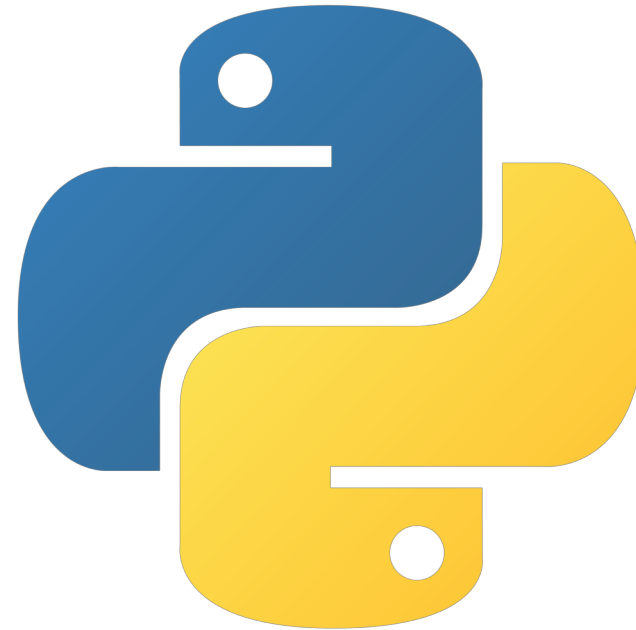
Python 101 x Scipy

(3) Python Basics Part 2

AIAT Academy

Python Basics' Outline (Part 2)

- Strings
- Console I/O
- Functions



Strings

Strings

```
greeting = 'Hi'
```

```
th_greeting = 'สวัสดี' # unicode by default
```

There is no Char in Python
' and " can be used in Strings

Strings (Indexing)


0 1 2 3 4
txt = 'AIAT'

txt[0]	==	'A'
txt[1]	==	'I'
txt[2]	==	'A'
txt[3]	==	'T'
txt[4]	#	Error!

Strings (Slicing)

txt = 'AIAT'

0 1 2 3 4



```
txt[0:2] == 'AI'
txt[2:4] == 'AT'
txt[1:3] == 'IA'
txt[:2]  == 'AI'
txt[2:]  == 'AT'
```

Converting Values

`str(2018)`

`# >> "2018"`

`(Strings)`

`int("2018")`

`# >> 2018`

`(Int)`

Converting Values

<code>str(2018)</code>	<code># >> "2018"</code>	<code>(Strings)</code>
<code>int("2018")</code>	<code># >> 2018</code>	<code>(Int)</code>
<code>float("2018.10")</code>	<code># >> 2018.10</code>	<code>(float)</code>
<code>float("2018")</code>	<code># >> 2018.0</code>	<code>(float)</code>

Console I/O

Console I/O

```
# Read an input (string) from the user  
name = input("What is your name? ")
```

Console I/O

```
# Read an input (string) from the user  
>> name = input("What is your name? ")
```

Output:

What is your name? Boat

Console I/O

Read an input (string) from the user

```
>> name = input("What is your name? ")
```

What is your name? Boat

```
>> print("Nice to meet you,", name)
```

Nice to meet you, Boat

Functions

Functions

`def` is a keyword for
defining a function

Parameter is optional
and no explicit type

```
def function_name(param1, param2):  
    value = do_something()  
    return value
```

`return` is optional
returning a value, otherwise return `None`

Functions (KM/h to MPH Converter)

```
def kmh_to_mph(kmh):  
    mph = 0.6214 * kmh  
    return mph
```

```
kmh = input("Enter a speed (KM/h): ")  
mph = kmh_to_mph(kmh)  
print("Speed:", kmh, "KM/H = ", mph, "MPH")
```